



HIV Epidemiological Data for Prevention Planning in Maryland

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AIDS Administration

Maryland Department of Health & Mental Hygiene

April 2, 2009

Maryland AIDS Administration

MISSION



To reduce the transmission of HIV and help Marylanders with HIV/AIDS live longer and healthier lives.

We accomplish this by working with public and private partners to develop and implement comprehensive, compassionate and quality services for both prevention and care. The AIDS Administration provides leadership, encourages input from affected communities, and uses scientific knowledge to guide the development of responsible and effective policies and programs.

Outline

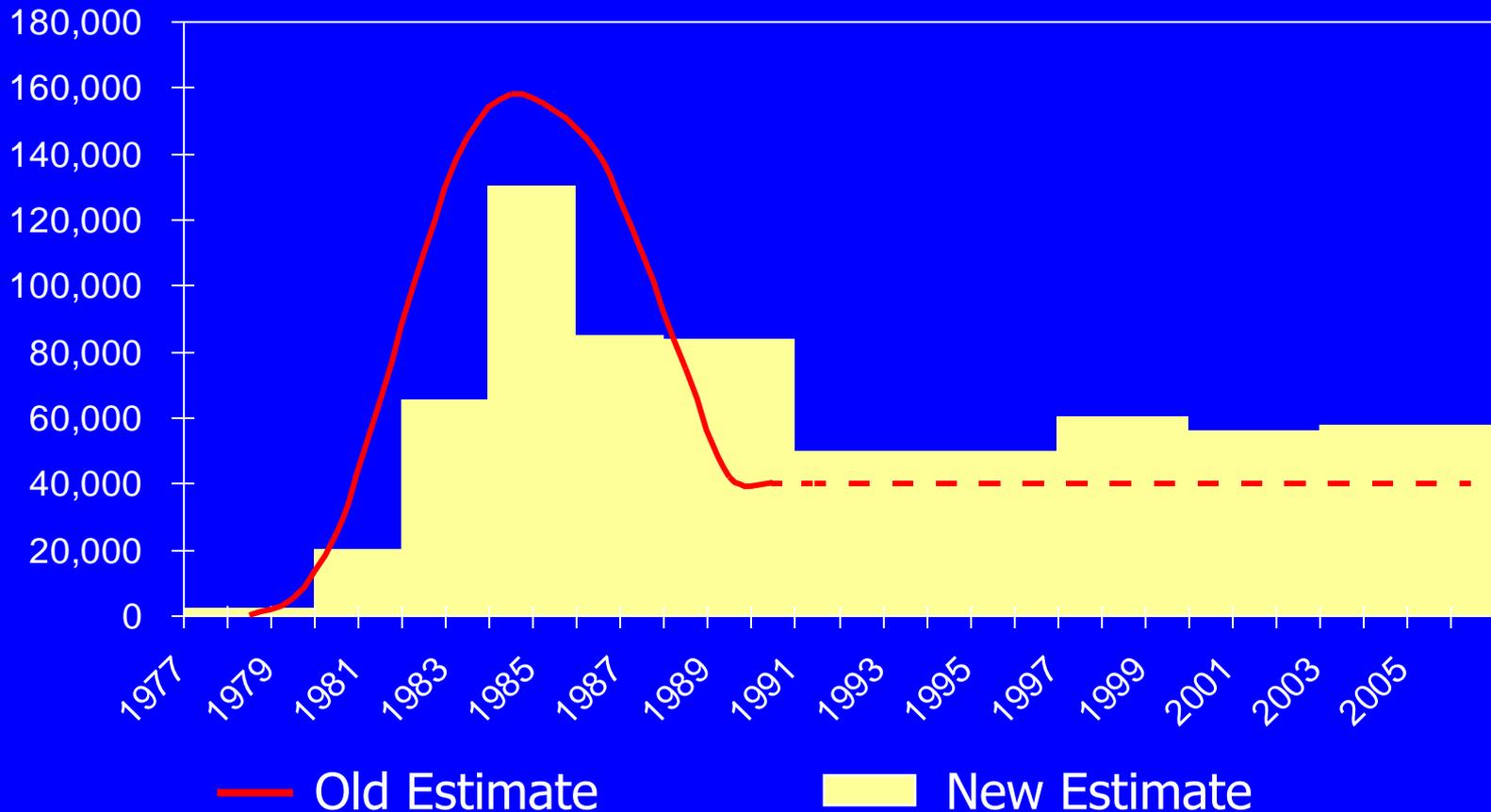


- New CDC Estimates
- Changes in Maryland Reporting
- Epidemiological Description
- Epidemiological Trends
- Special Populations Data
- Priority Populations Recommendations



New CDC Estimates

CDC New Incidence Estimate



Hall et al. JAMA, August 2008.

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CDC New Prevalence Estimate



- Old estimate: In 2003, 1.1 million Americans were infected with HIV, and 25% did not know it
 - Glynn M, Rhodes P. National HIV Prevention Conference; June 2005; Atlanta.
- New estimate: In 2006, 1.1 million Americans were infected with HIV, and 21% did not know it
 - CDC. Morbidity and Mortality Weekly Report; October 2008; Atlanta.



2007 AIDS Case Report Rates

| <u>STATE/TERRITORY</u> | <u>Cases</u> | <u>Rate per 100,000</u> |
|-------------------------|---------------|-------------------------|
| 1. District of Columbia | 871 | 148.1 |
| 2. Virgin Islands | 34 | 31.4 |
| 3. New York | 4,810 | 24.9 |
| 4. Maryland | 1,394 | 24.8 |
| 5. Florida | 3,961 | 21.7 |
| 6. Puerto Rico | 847 | 21.5 |
| 7. Louisiana | 879 | 20.5 |
| 8. Delaware | 171 | 19.8 |
| 9. Georgia | 1,877 | 19.7 |
| 10. South Carolina | 742 | 16.8 |
| <i>United States</i> | 38,384 | 12.5 |

2007 AIDS Case Report Rates



| <u>METROPOLITAN AREA</u> | <u>Cases</u> | <u>Rate per 100,000</u> |
|------------------------------------|---------------|-------------------------|
| 1. Miami, FL | 1,792 | 33.1 |
| 2. New Orleans-Metairie-Kenner, LA | 325 | 31.5 |
| 3. Baton Rouge, LA | 242 | 31.4 |
| 4. Washington, DC-VA-MD-WV | 1,618 | 30.5 |
| 5. Baltimore-Towson, MD | 791 | 29.6 |
| 6. New York, NY-NJ-PA | 5,095 | 27.1 |
| 7T. Jackson, MS | 139 | 26.0 |
| 7T. San Francisco, CA | 1,091 | 26.0 |
| 9. Columbia, SC | 181 | 25.3 |
| 10. Jacksonville, FL | 301 | 23.1 |
| <i>United States</i> | 38,128 | 12.5 |

2007 Estimated Adult AIDS Prevalence Rates



| <u>STATE/TERRITORY</u> | <u>Cases</u> | <u>Rate per 100,000</u> |
|-------------------------|----------------|-------------------------|
| 1. District of Columbia | 8,871 | 1,750.6 |
| 2. New York | 75,146 | 463.5 |
| 3. Virgin Islands | 330 | 368.6 |
| 4. Puerto Rico | 11,484 | 354.7 |
| 5. Maryland | 15,652 | 335.8 |
| 6. Florida | 47,907 | 311.5 |
| 7. Delaware | 1,836 | 255.5 |
| 8. New Jersey | 17,628 | 243.9 |
| 9. Louisiana | 8,476 | 240.4 |
| 10. Connecticut | 6,922 | 236.1 |
| <i>United States</i> | <i>467,664</i> | <i>185.1</i> |



Changes in Maryland Reporting

Ryan White Treatment Modernization Act of 2006



- Ryan White funds dependent on name-based HIV reporting
- Non-name-based HIV reporting states given three-year transition period, if:
 - Transition plan by 10/1/06
 - Laws/regulations in place by 4/1/08
- Name-based data to be used in 2010 funding allocations using data reported through 12/31/08

Maryland HIV/AIDS Reporting Act of 2007



- House Bill 1270 – Senate Bill 987
- Needed to comply with new federal mandates in Ryan White Treatment Modernization Act of 2006
- Governor signed on 4/24/2007
- Emergency legislation – went into effect immediately

Maryland HIV/AIDS Reporting Act of 2007



- Physician reporting by name of HIV and AIDS cases
- Physician reporting by name of HIV exposed infants
- Facility reporting by name of HIV and AIDS cases
- Laboratory reporting by name of HIV+ and all CD4 and VL test results

Transition Plan



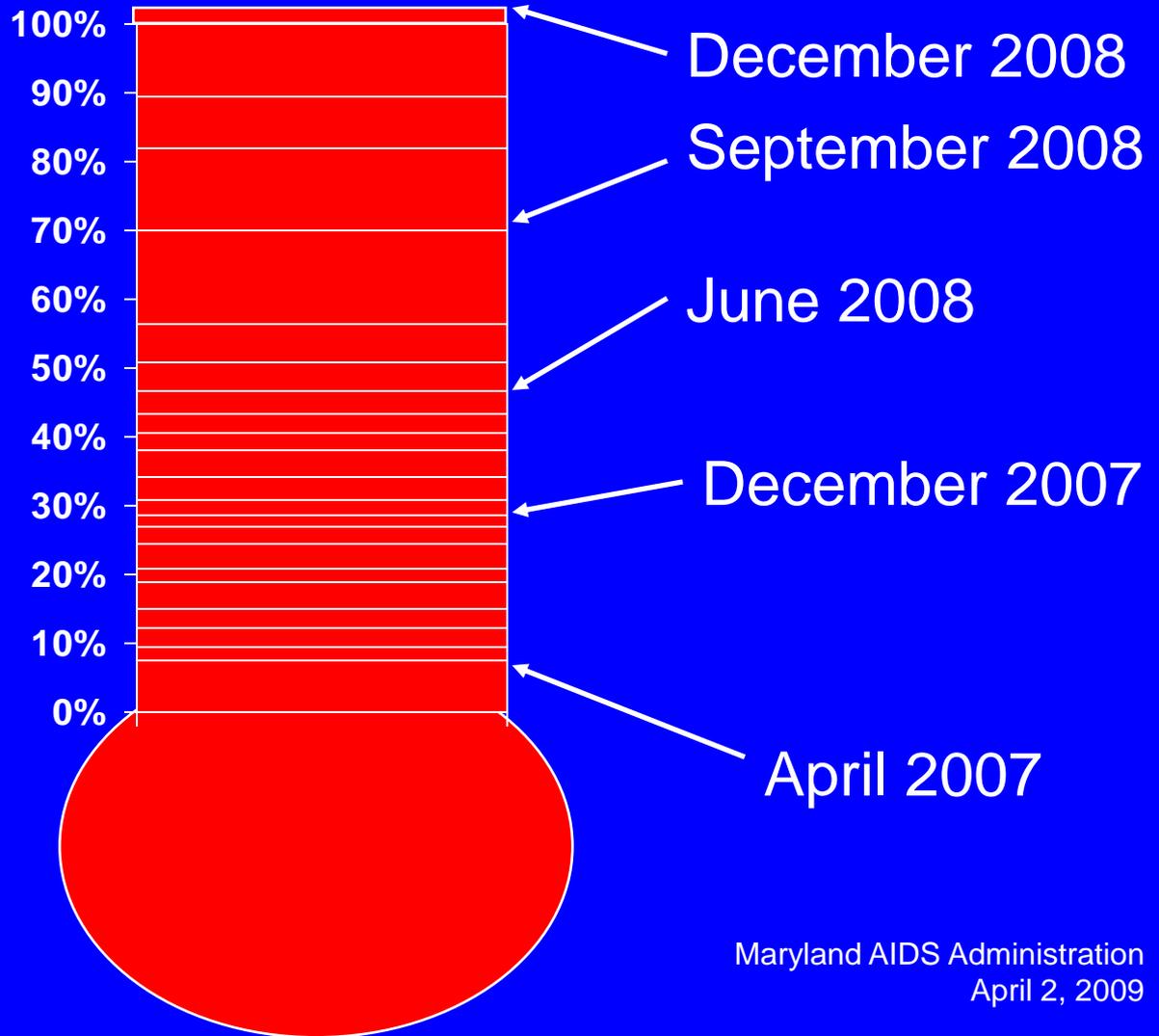
- Change over systems to report all new cases using names, immediately
- Contact major HIV providers to make available lists of prevalent HIV cases
- Re-report previously reported code-based cases as name-based cases
- Identify sources of missing cases and investigate

Progress towards HIV Reporting Goal



101%

As of 12/31/2008



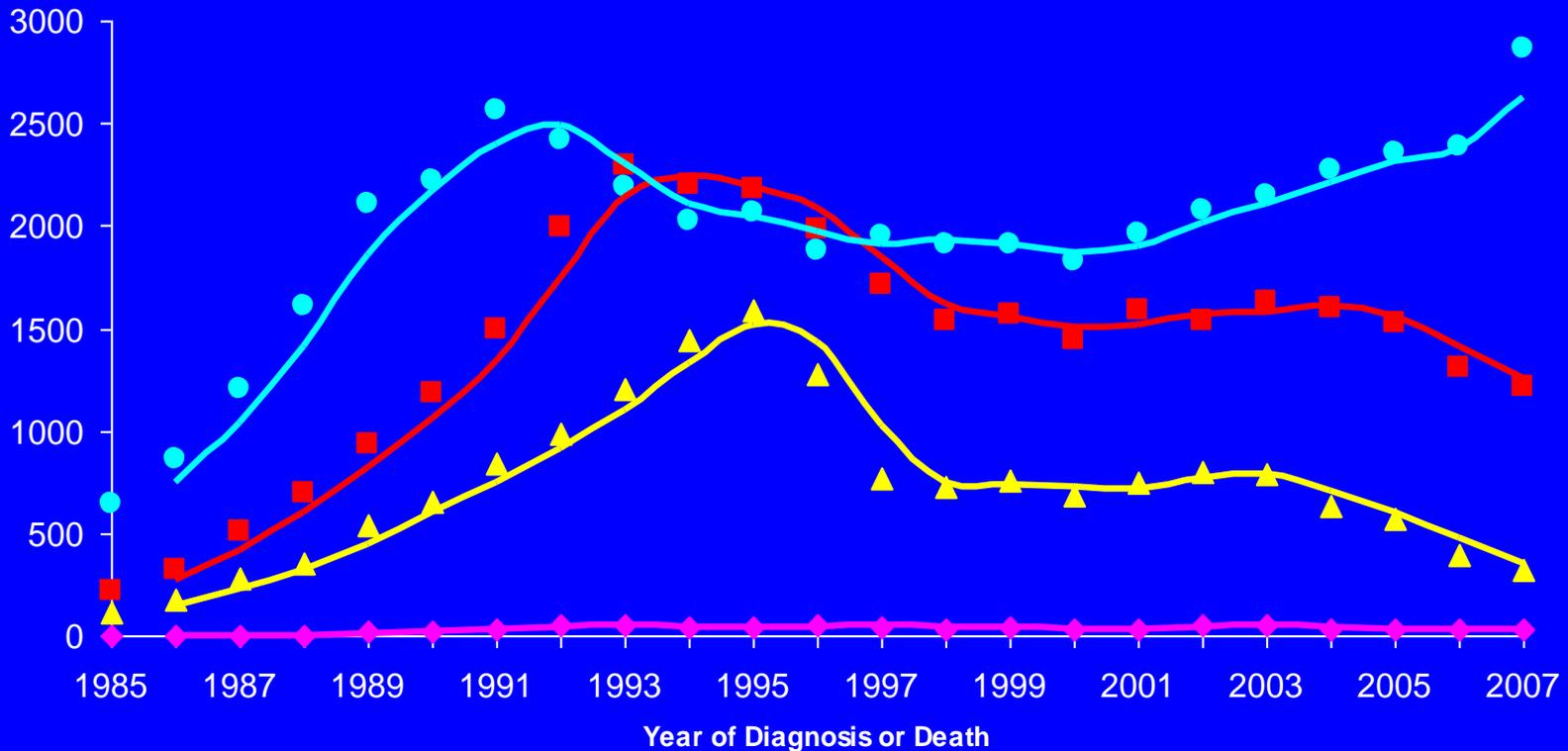


Epidemiological Description

Maryland HIV/AIDS Trends



Number of Events



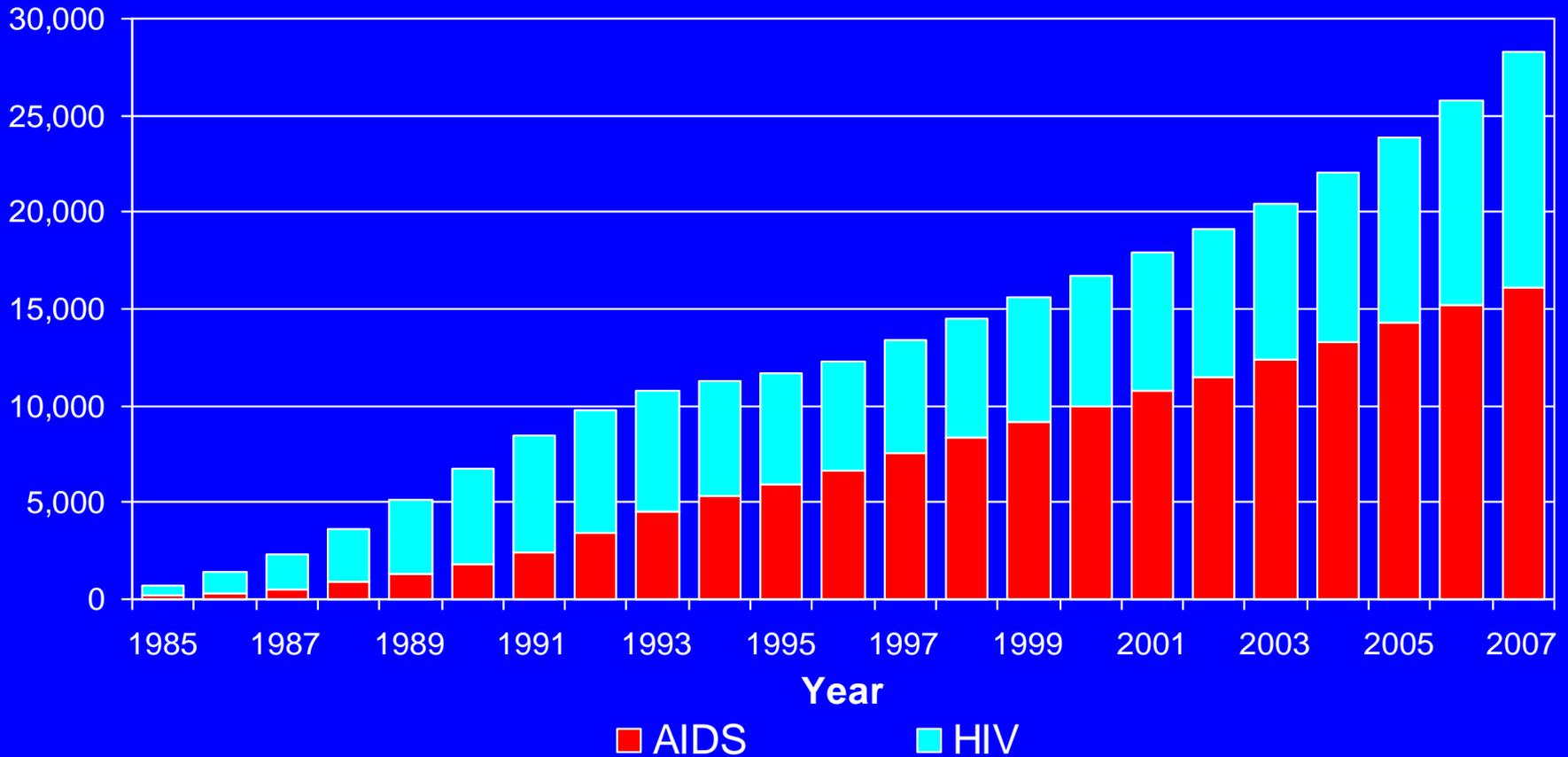
■ AIDS Cases
● HIV Cases

▲ Deaths among AIDS Cases
◆ Deaths among HIV Cases

Maryland HIV/AIDS Prevalence



Number of Cases





Maryland HIV/AIDS Statistics

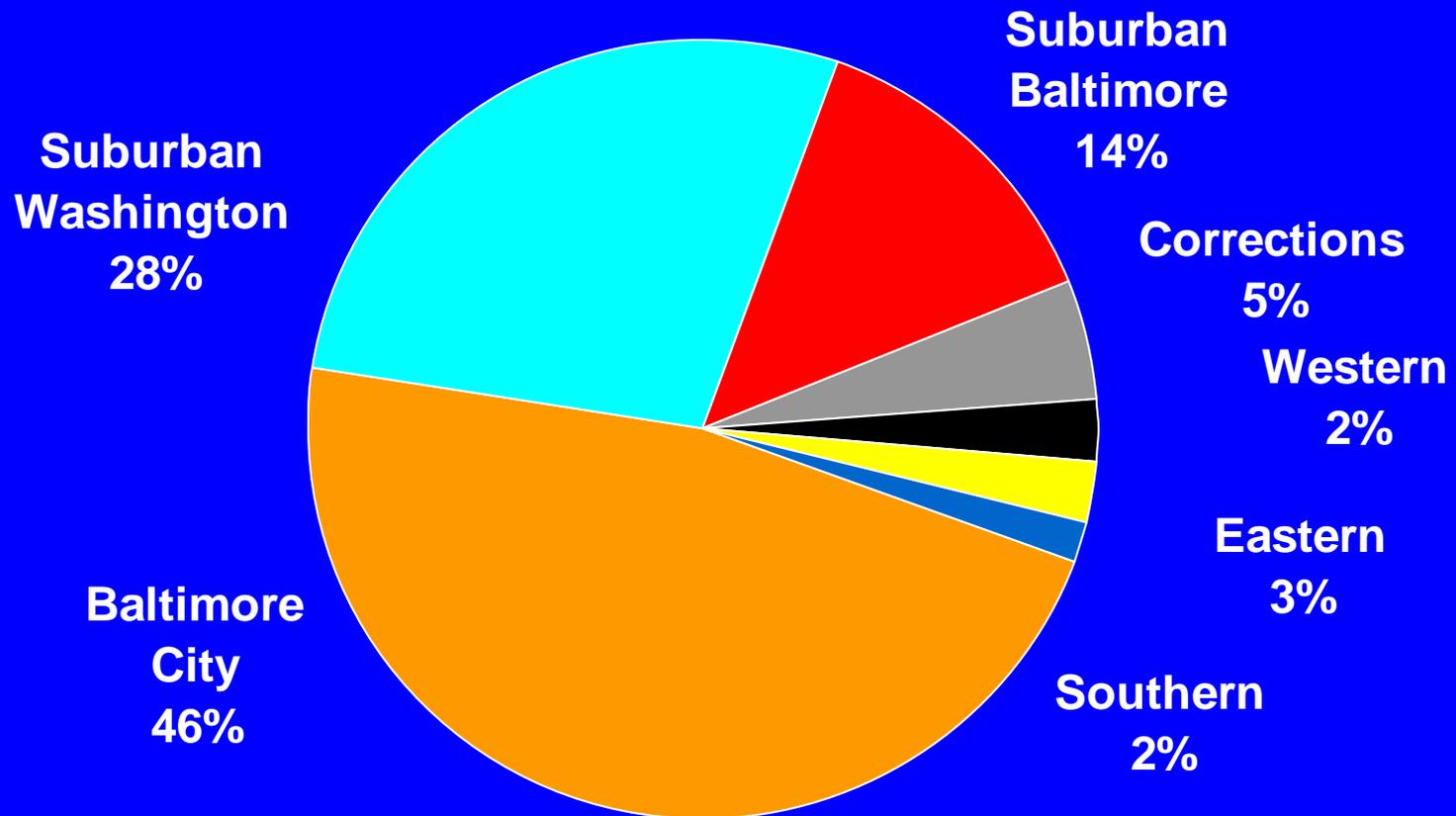
| Incidence (1/1/07-12/31/07) | | per 100,000 |
|-------------------------------|------------------------|-------------|
| HIV | 2,866 | 54.1 |
| AIDS | 1,211 | 22.9 |
| Prevalence (on 12/31/07) | | |
| HIV without AIDS | 12,208 | 230.5 |
| HIV with AIDS | 16,062 | 303.3 |
| HIV | 28,270 | 533.8 |
| Cumulative (through 12/31/08) | | |
| HIV | 48,494 | |
| HIV with AIDS | 33,769 (69.6% of HIV) | |
| AIDS Deaths | 16,933 (50.1% of AIDS) | |



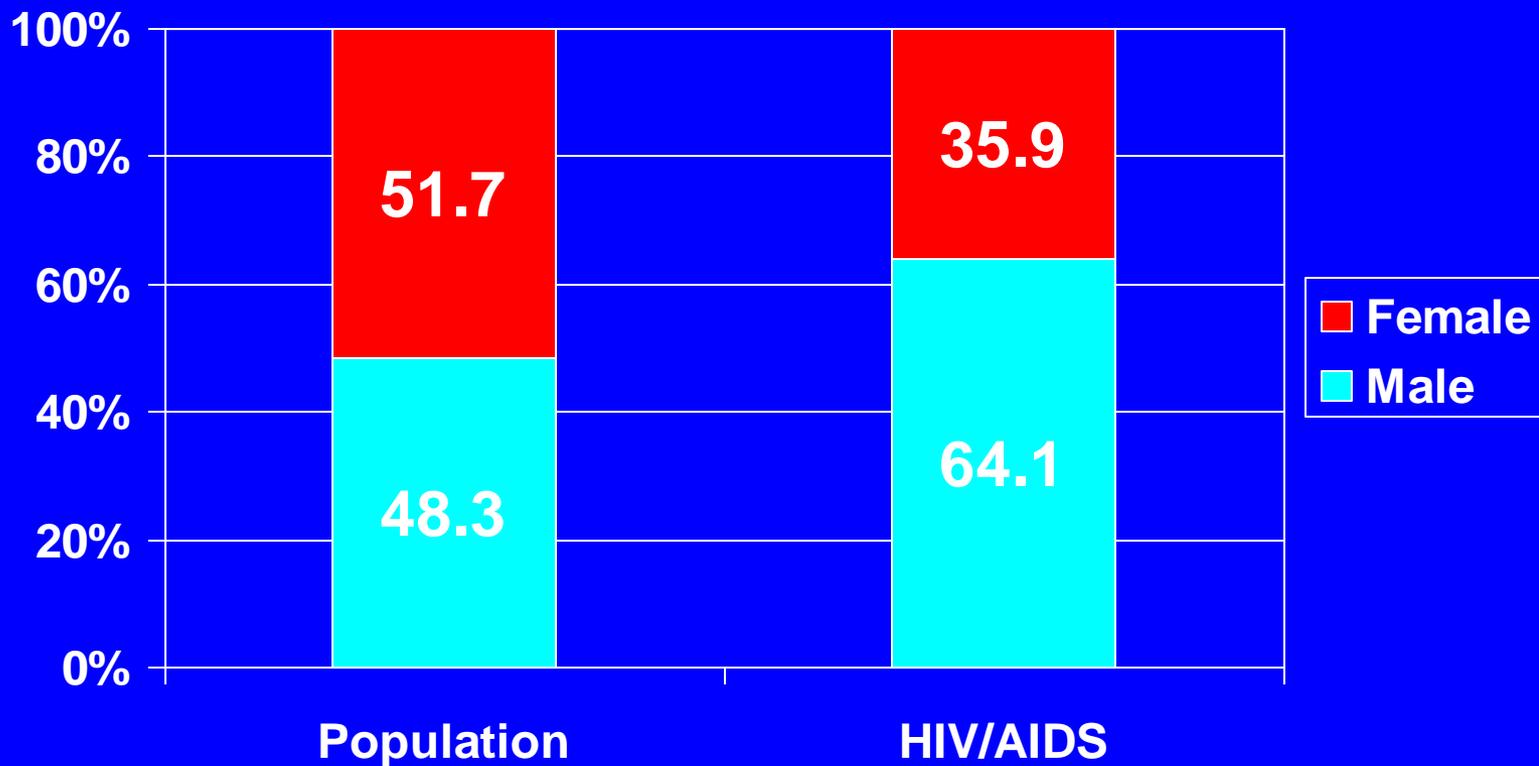
Maryland HIV/AIDS Prevalence

(HIV and AIDS cases diagnosed through and alive on 12/31/07, as reported by name through 12/31/08)

Maryland HIV/AIDS Prevalence by Region, 12/31/07



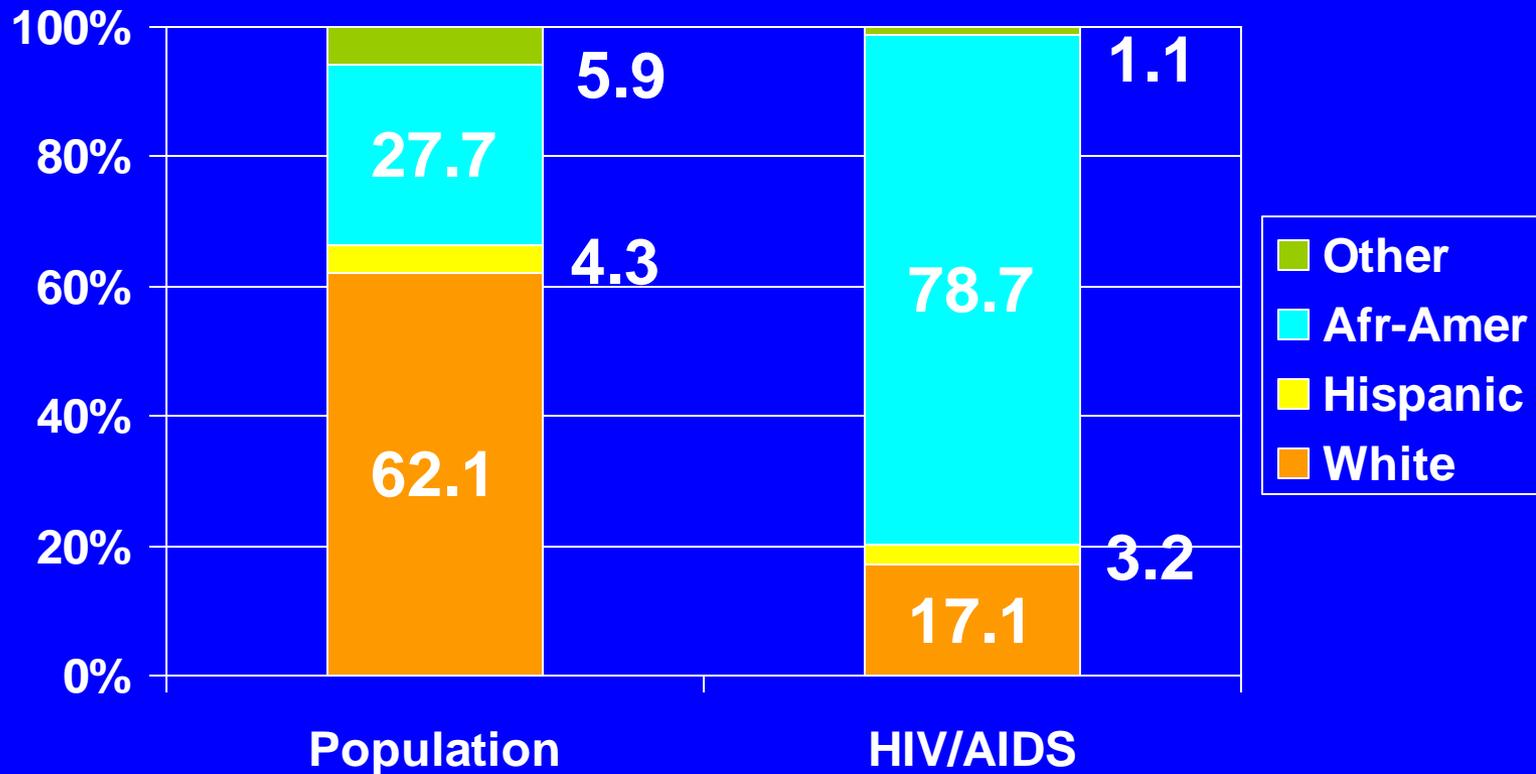
Maryland Population and HIV/AIDS Prevalence by Gender



2000 Census, Prevalence on 12/31/07

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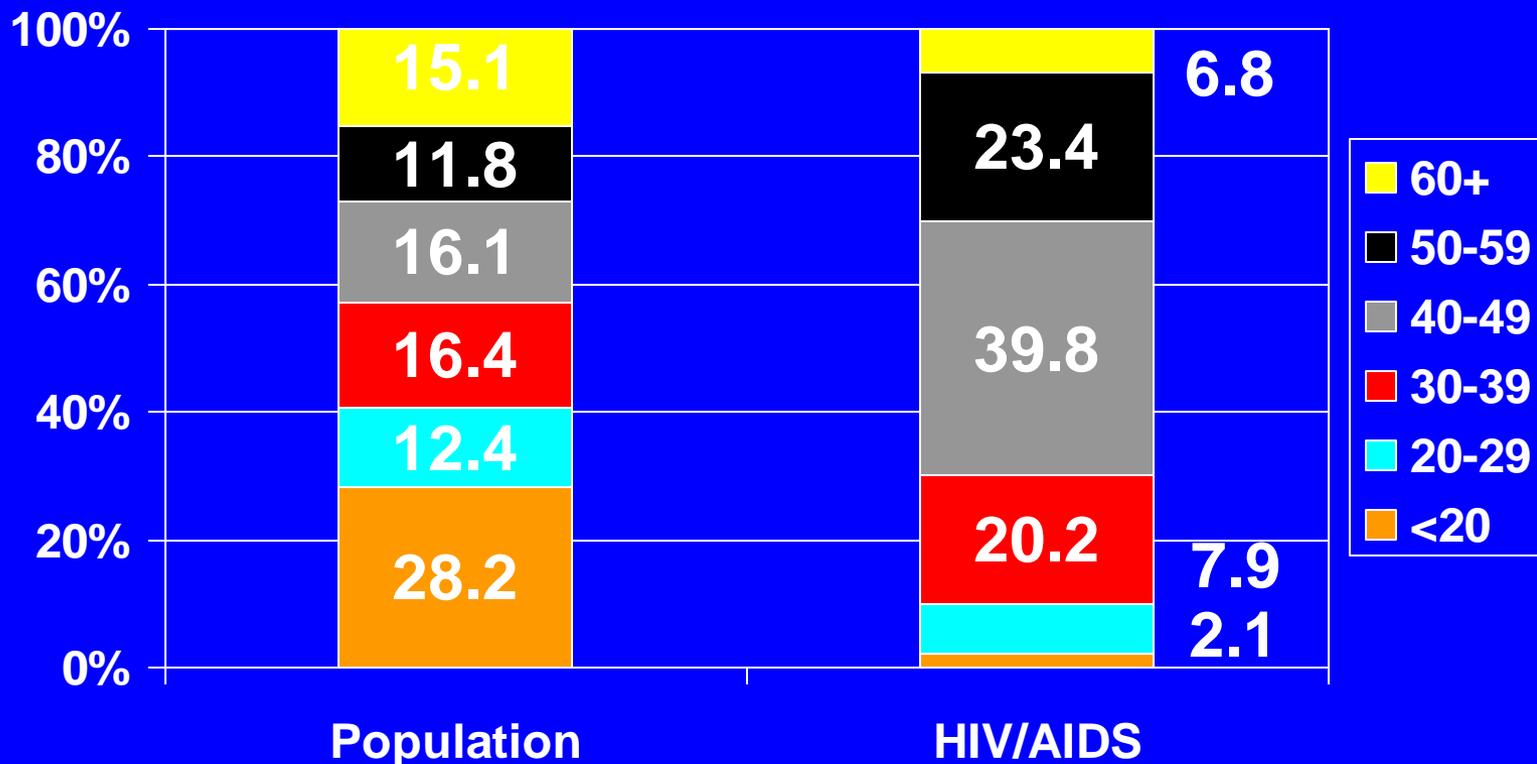
Maryland Population and HIV/AIDS Prevalence by Race/Ethnicity



2000 Census, Prevalence on 12/31/07

Maryland AIDS Administration
April 2, 2009

Maryland Population and HIV/AIDS Prevalence by Age



2000 Census, Prevalence on 12/31/07

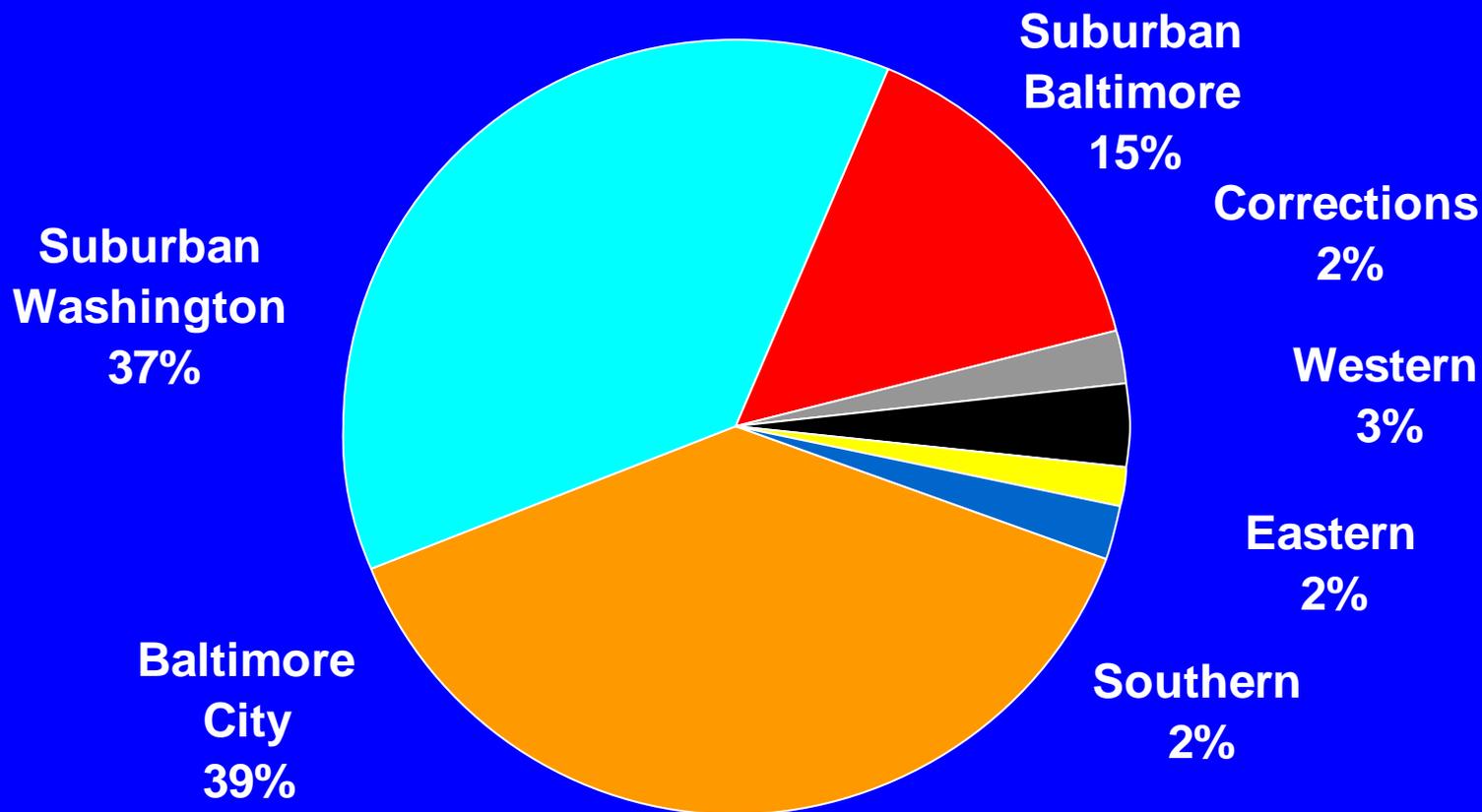
Maryland AIDS Administration
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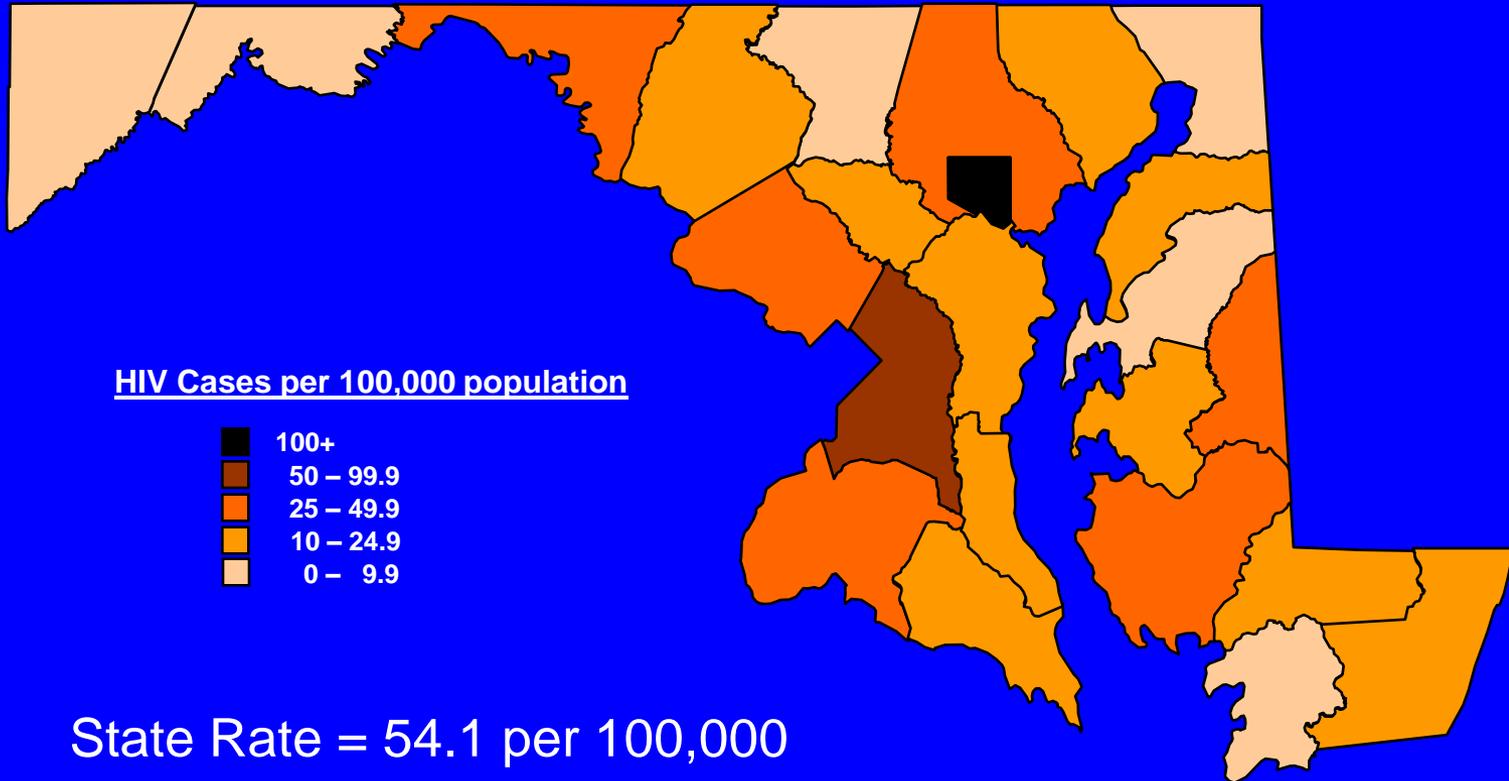
Maryland HIV Incidence

(HIV and AIDS cases diagnosed
with HIV during 2007,
as reported by name through
12/31/08)

Maryland HIV Incidence by Region, 2007



Maryland HIV Incidence Rates by County, 2007





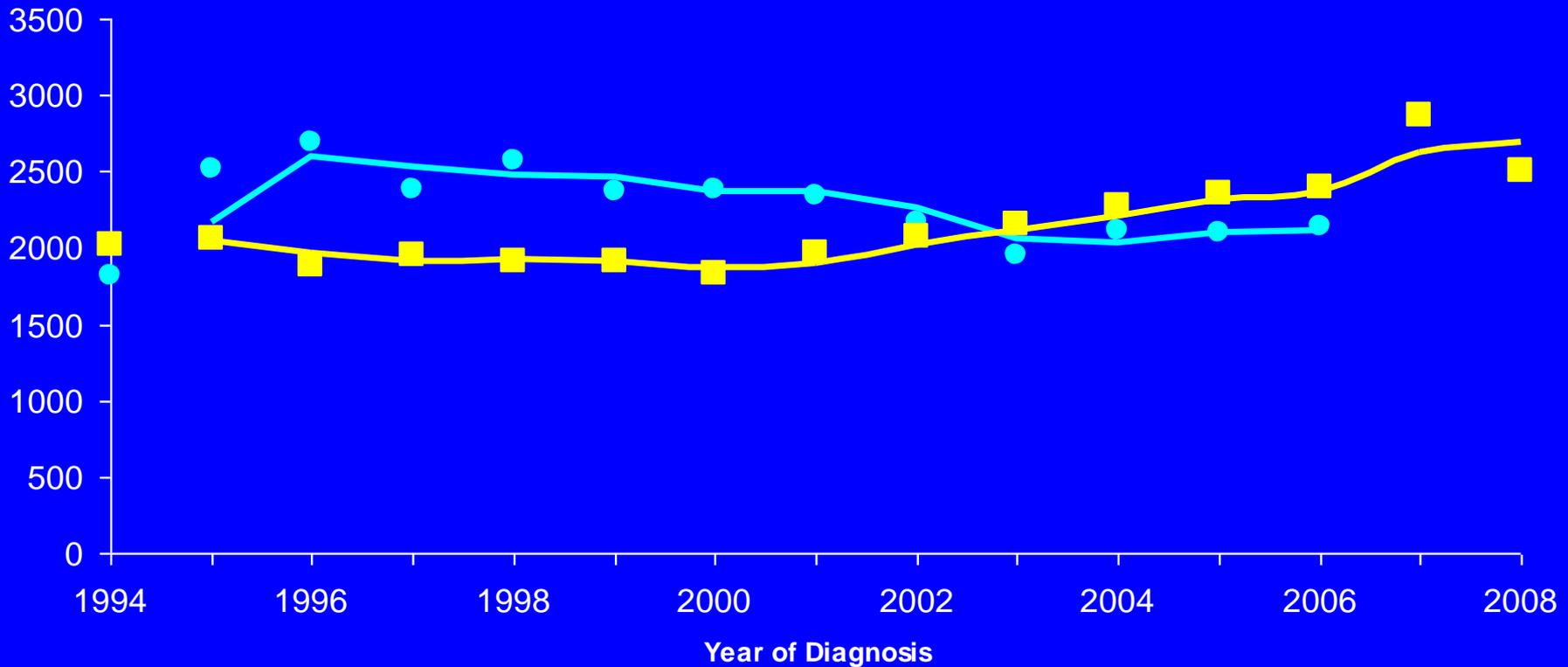
Epidemiological Trends

Maryland HIV Incidence Trends



Code-Based and Name-Based HIV Incidence Trends

Number of Events



● Code-Based ■ Name-Based

Maryland HIV Incidence Trends



- Code-based reporting
 - Prospective (1994 and forward) laboratory-based reporting
 - Creates a “left” bias
- Name-based reporting
 - Prospective laboratory-based (2007 and forward) and retrospective provider-based reporting (2007 and backward)
 - Creates a “right” bias
- “True” incidence is probably somewhere in-between the two curves

Other Factors Affecting Maryland's Incidence Trends

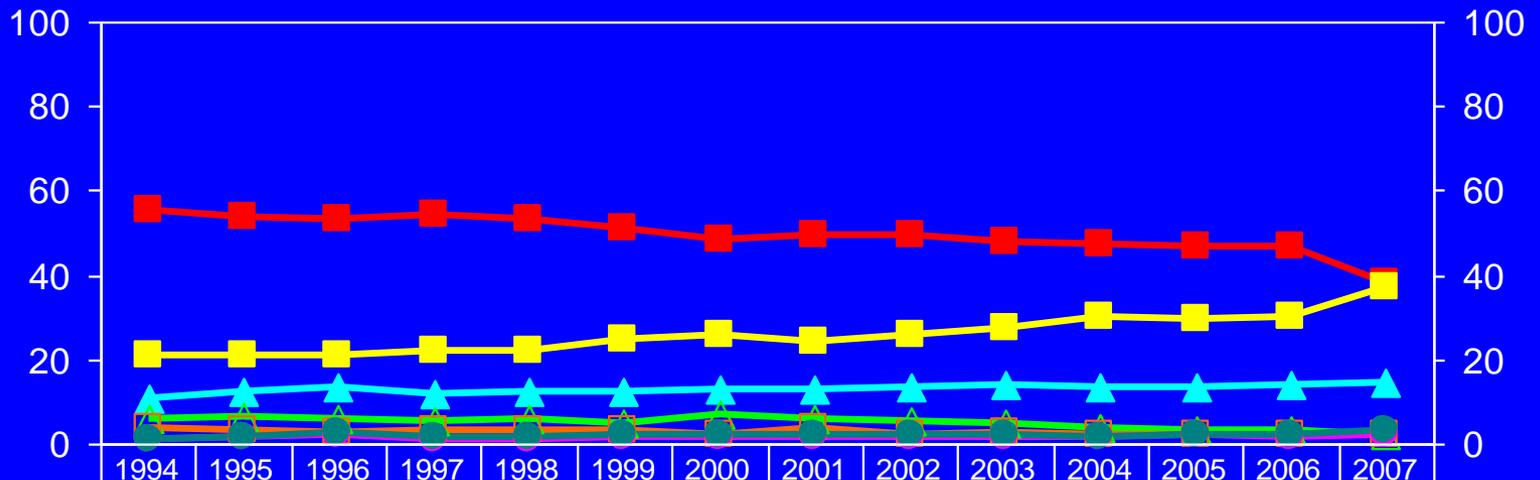


- CDC's HIV screening recommendation for the general population
- Maryland's expanded ER HIV testing program
- Possible underlying changes in the epidemic

Maryland HIV Incidence Trends Region



Percent

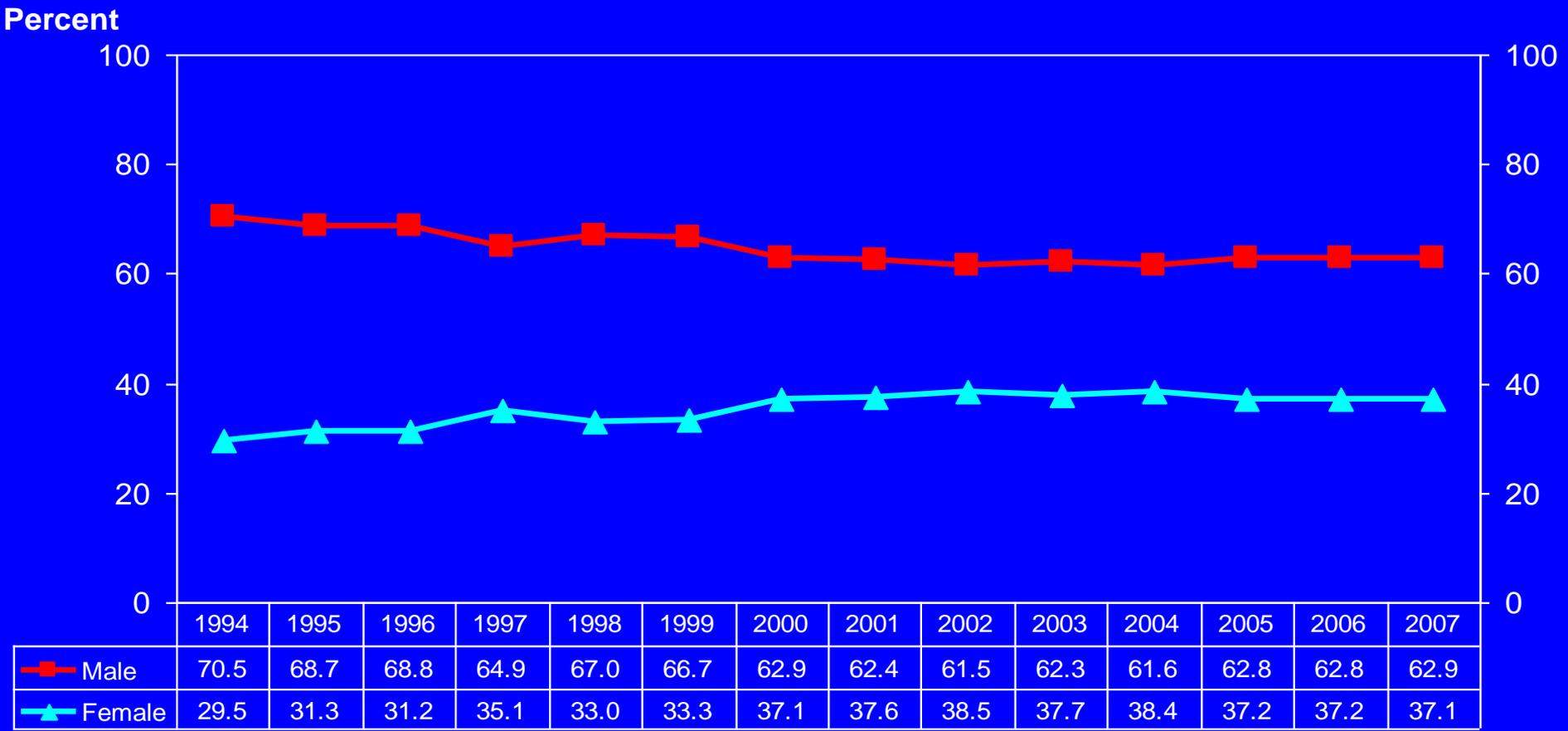


| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Baltimore City | 55.6 | 53.8 | 53.0 | 54.4 | 53.4 | 51.0 | 48.6 | 49.7 | 49.5 | 48.0 | 47.3 | 46.6 | 46.9 | 38.3 |
| Suburban Baltimore | 10.8 | 12.2 | 13.3 | 12.0 | 12.6 | 12.5 | 13.0 | 12.7 | 13.7 | 14.2 | 13.4 | 13.7 | 14.1 | 14.7 |
| Suburban Washington | 20.9 | 21.2 | 20.9 | 22.1 | 21.8 | 24.7 | 25.6 | 24.3 | 25.9 | 27.2 | 29.9 | 29.8 | 29.9 | 37.3 |
| Corrections | 6.0 | 6.2 | 5.9 | 5.4 | 5.8 | 5.0 | 7.2 | 6.1 | 5.2 | 4.6 | 4.0 | 3.2 | 3.1 | 2.3 |
| Eastern | 4.0 | 3.4 | 2.6 | 3.1 | 3.4 | 3.2 | 2.3 | 3.6 | 1.9 | 2.5 | 2.1 | 2.4 | 2.2 | 2.0 |
| Southern | 1.3 | 1.5 | 1.9 | 1.3 | 1.3 | 1.5 | 1.5 | 1.4 | 1.4 | 1.6 | 1.5 | 2.2 | 1.8 | 2.2 |
| Western | 1.3 | 1.8 | 2.5 | 1.6 | 1.6 | 2.0 | 1.9 | 2.2 | 2.4 | 1.9 | 1.8 | 2.1 | 2.0 | 3.1 |

Year of Diagnosis

Maryland HIV Incidence Trends

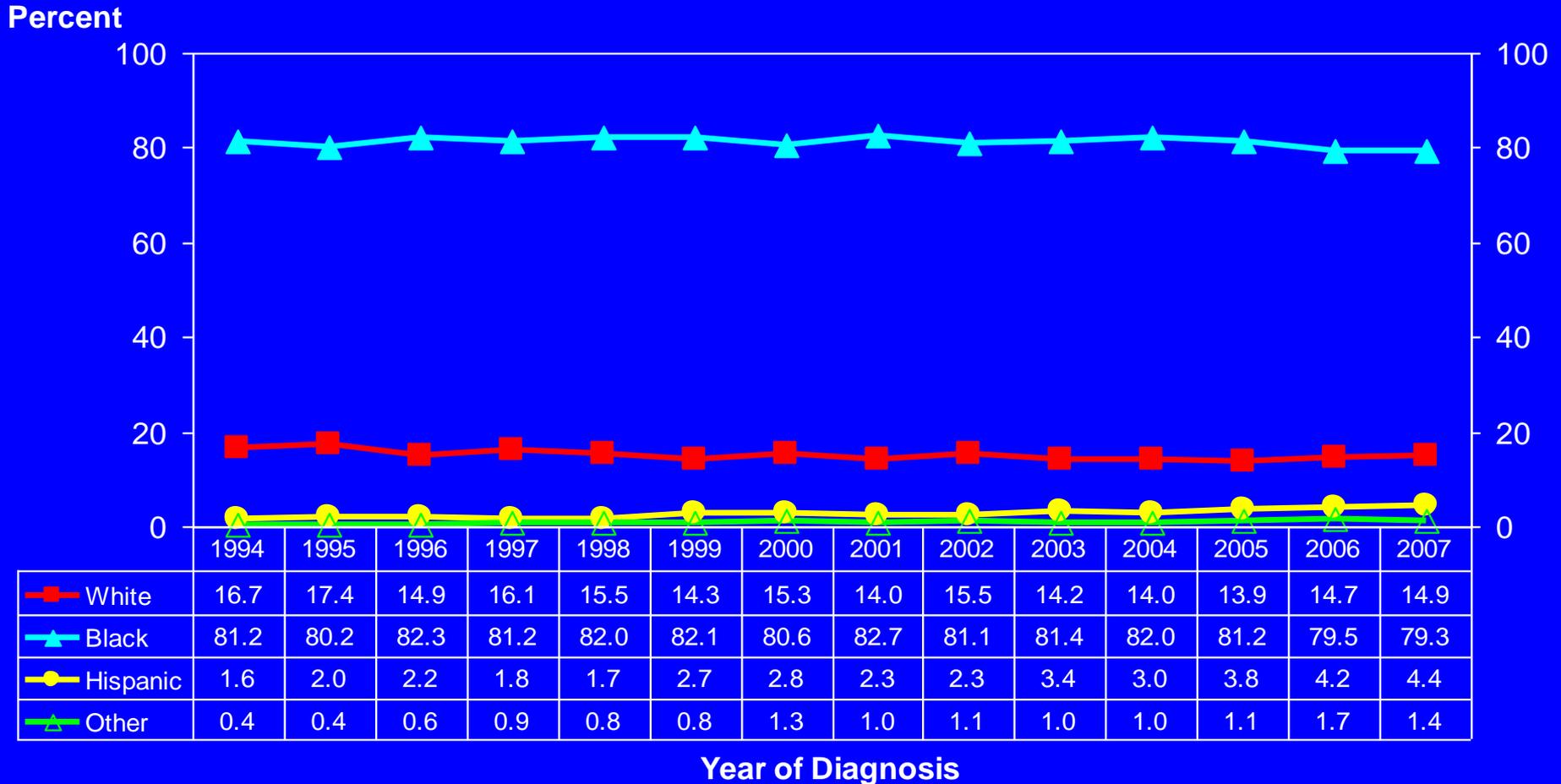
Gender



Year of Diagnosis

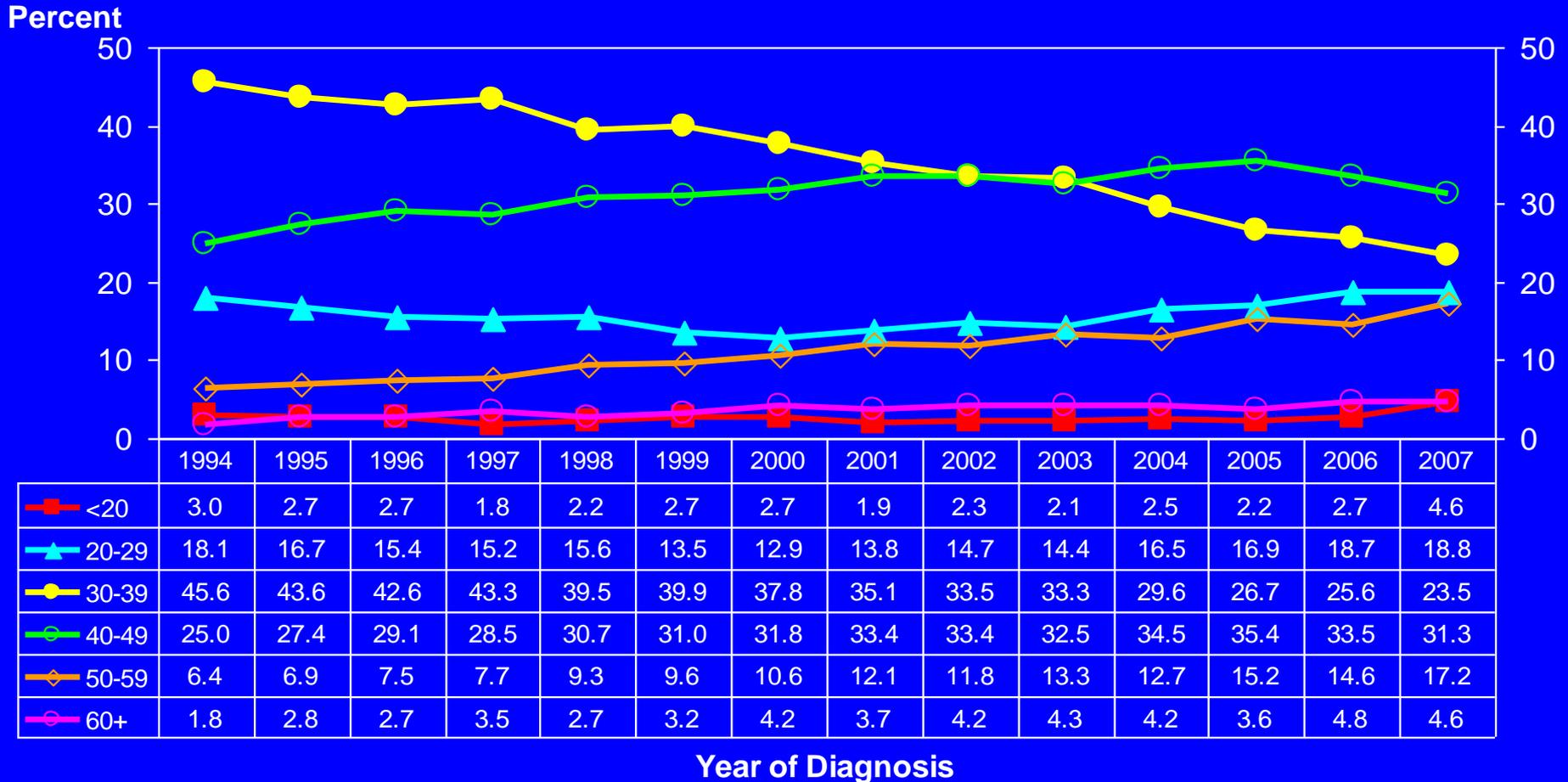
Maryland HIV Incidence Trends

Race/Ethnicity



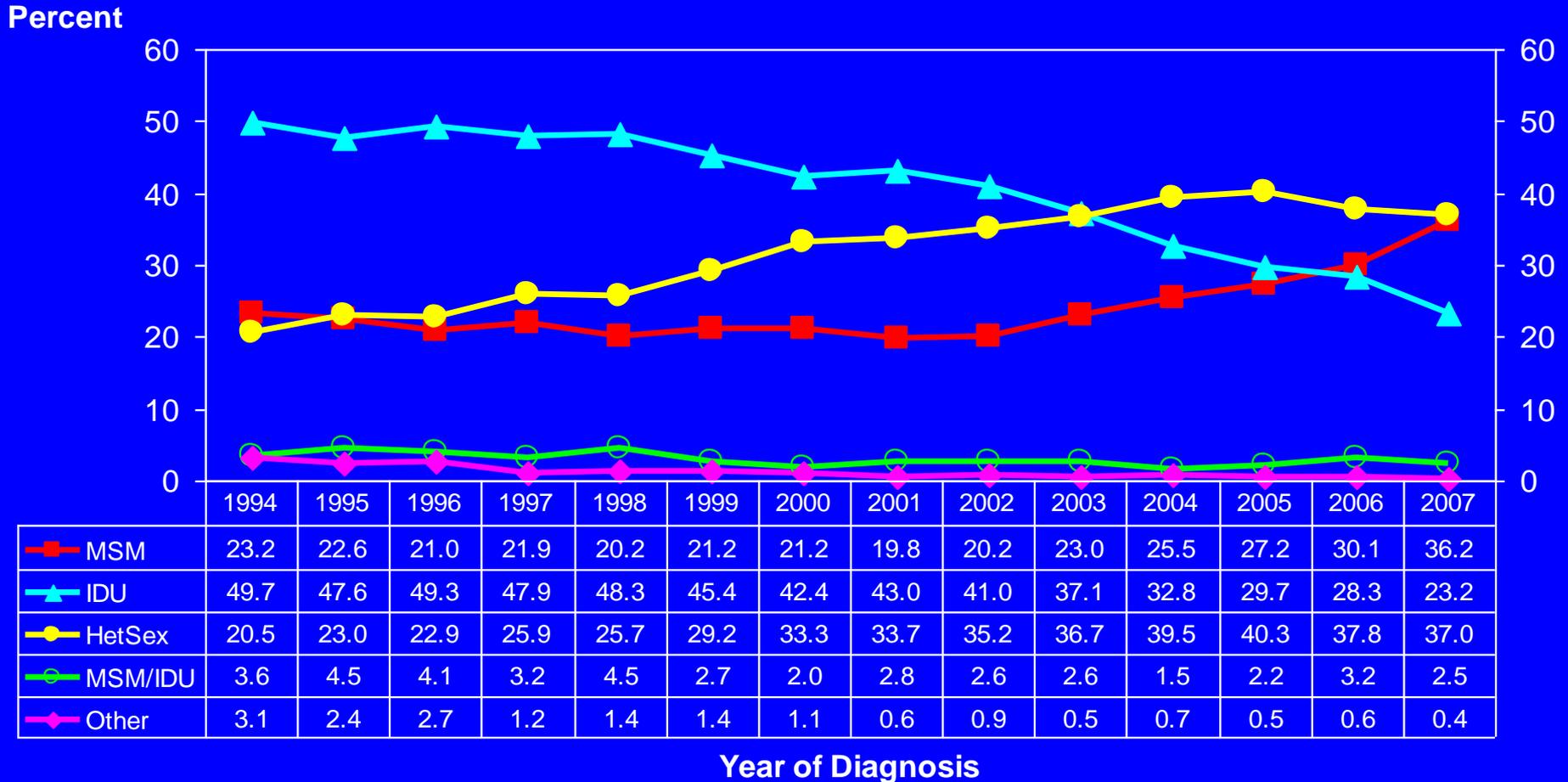
Maryland HIV Incidence Trends

Age



Maryland HIV Incidence Trends

Exposure



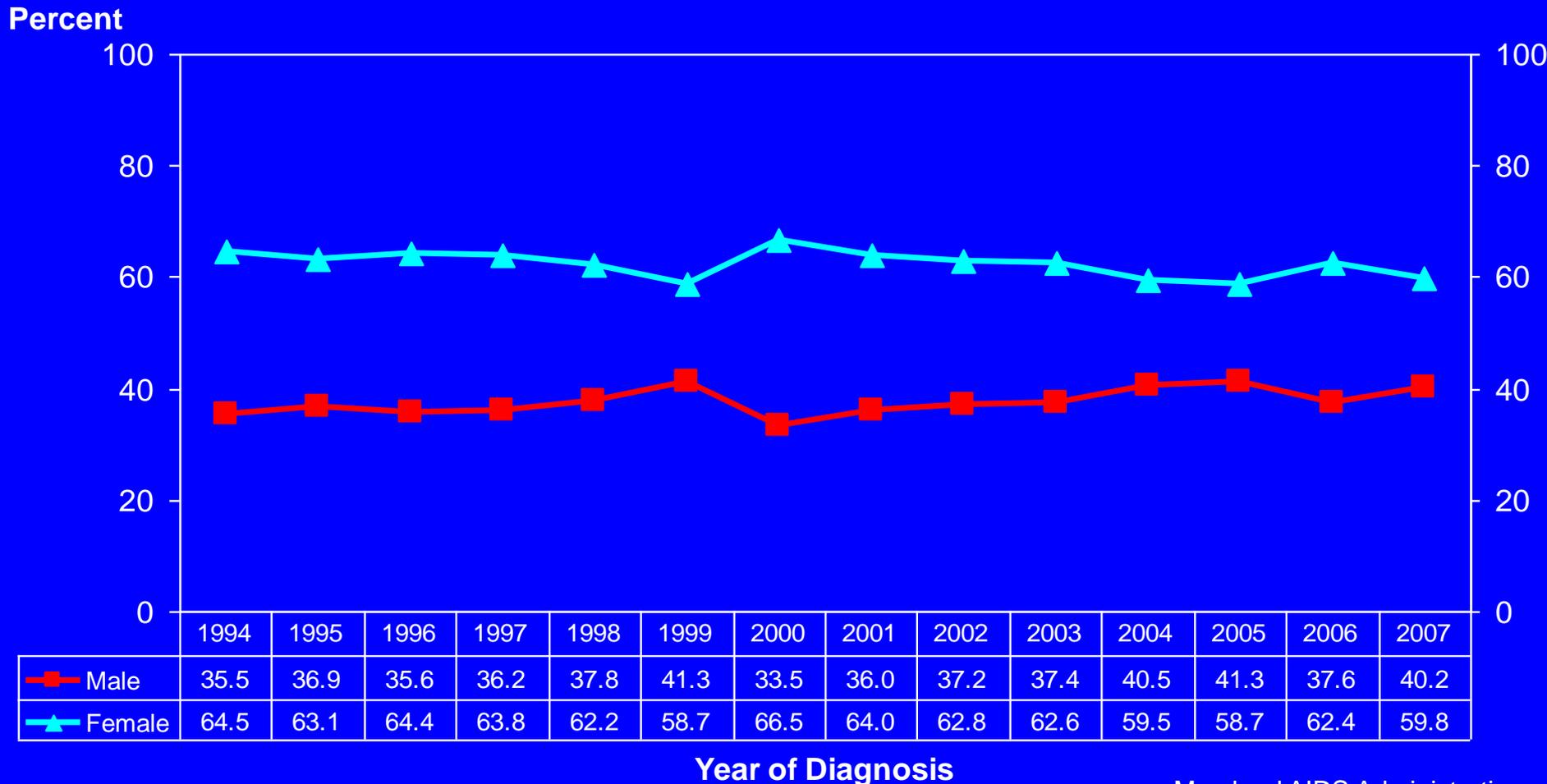


Maryland HIV Incidence

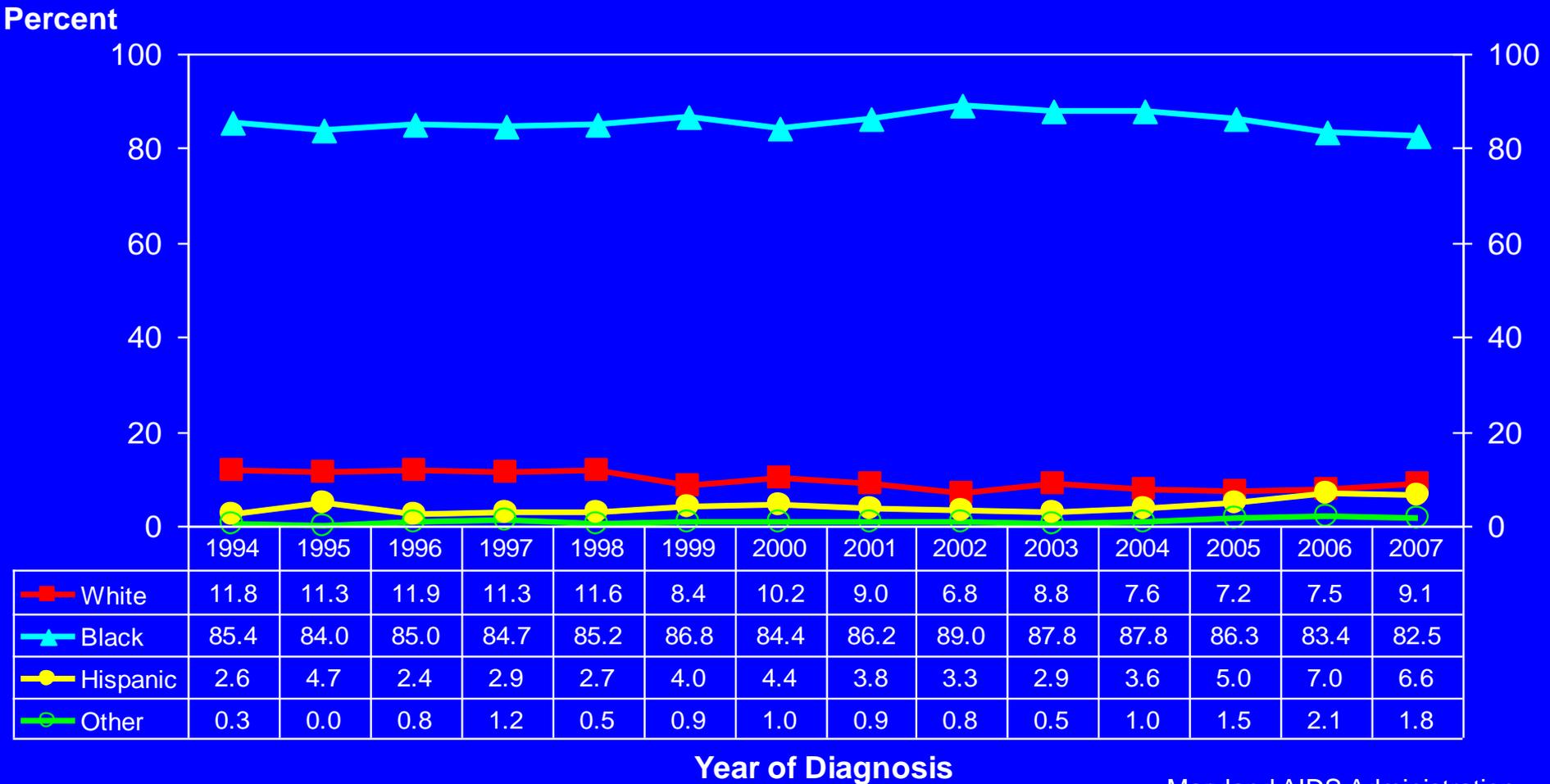
Heterosexual Exposure

Maryland HIV Incidence Trends

Heterosexual Exposure, Gender

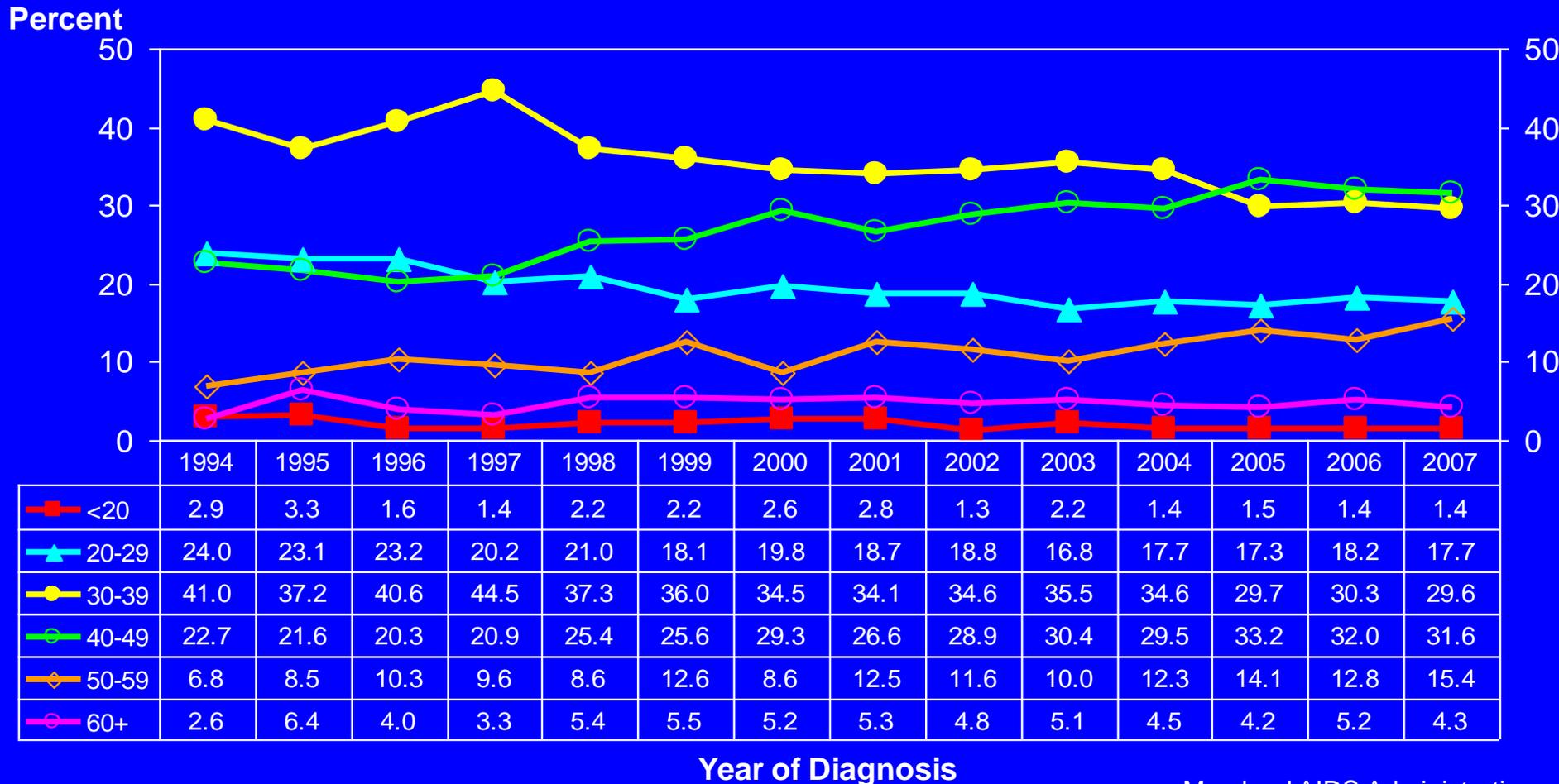


HIV Incidence Trends Heterosexual Exposure Race/Ethnicity



Maryland HIV Incidence Trends

Heterosexual Exposure, Age



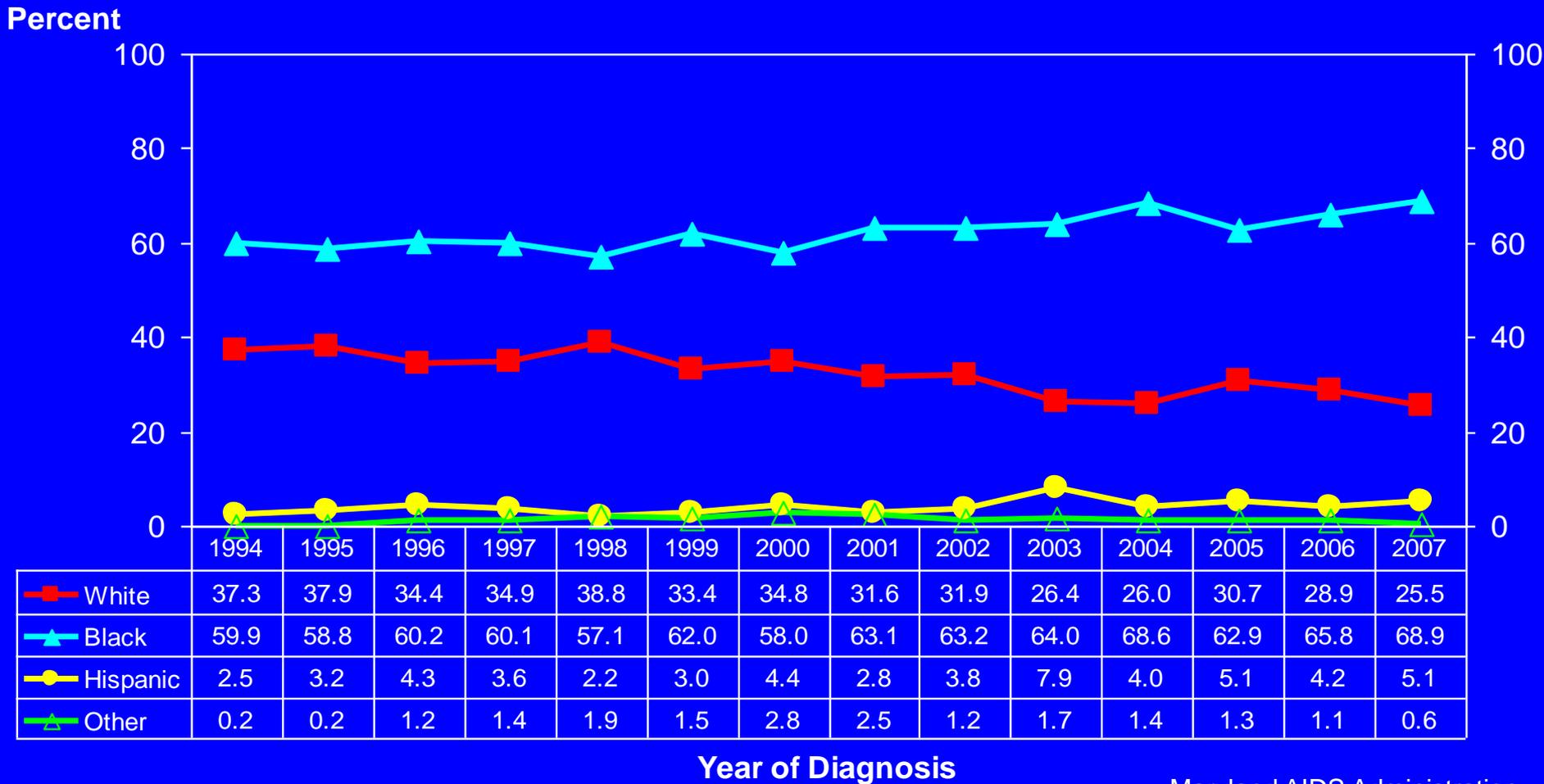


Maryland HIV Incidence

MSM Exposure

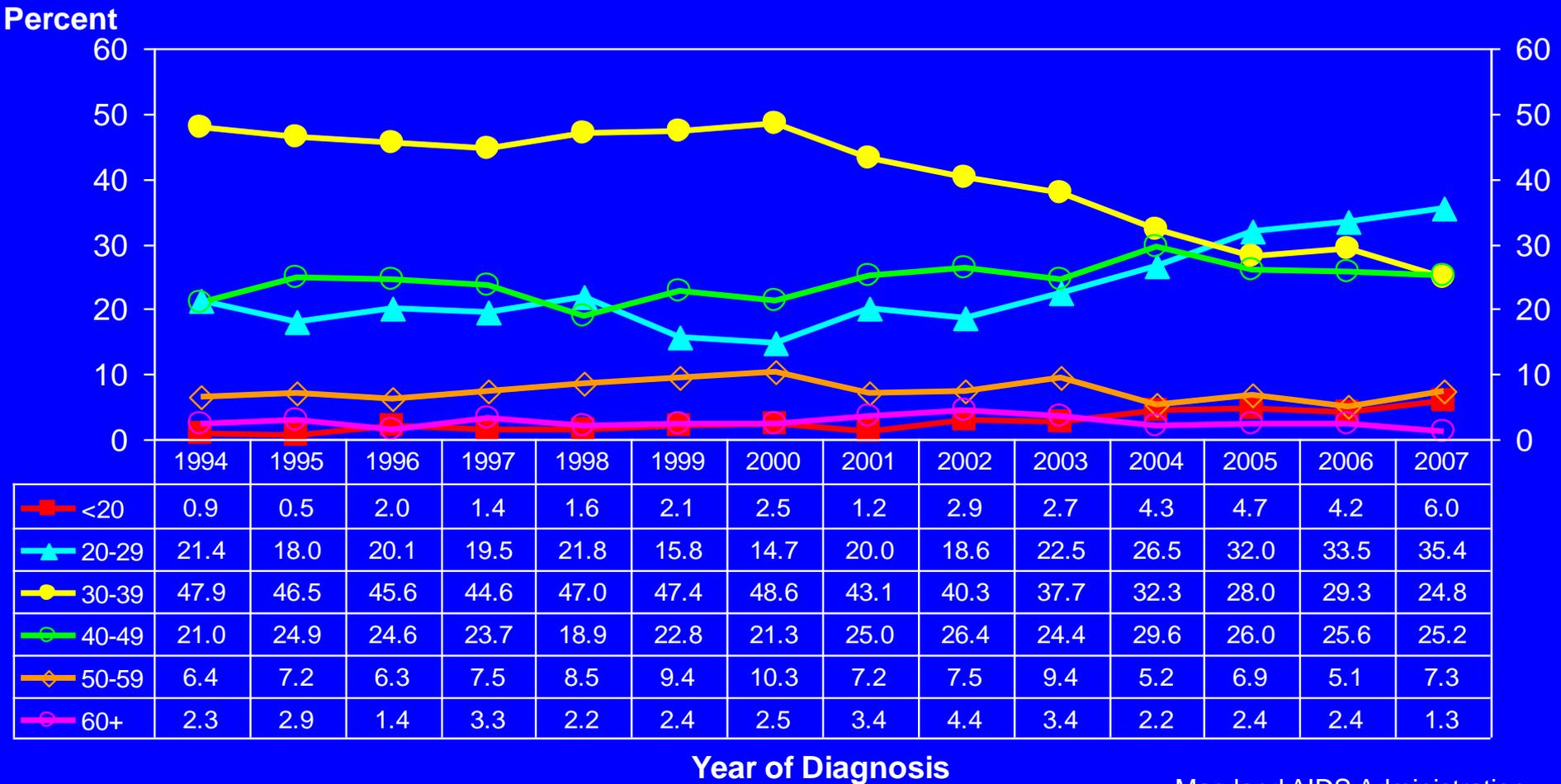
Maryland HIV Incidence Trends

MSM Exposure, Race/Ethnicity



Maryland HIV Incidence Trends

MSM Exposure, Age



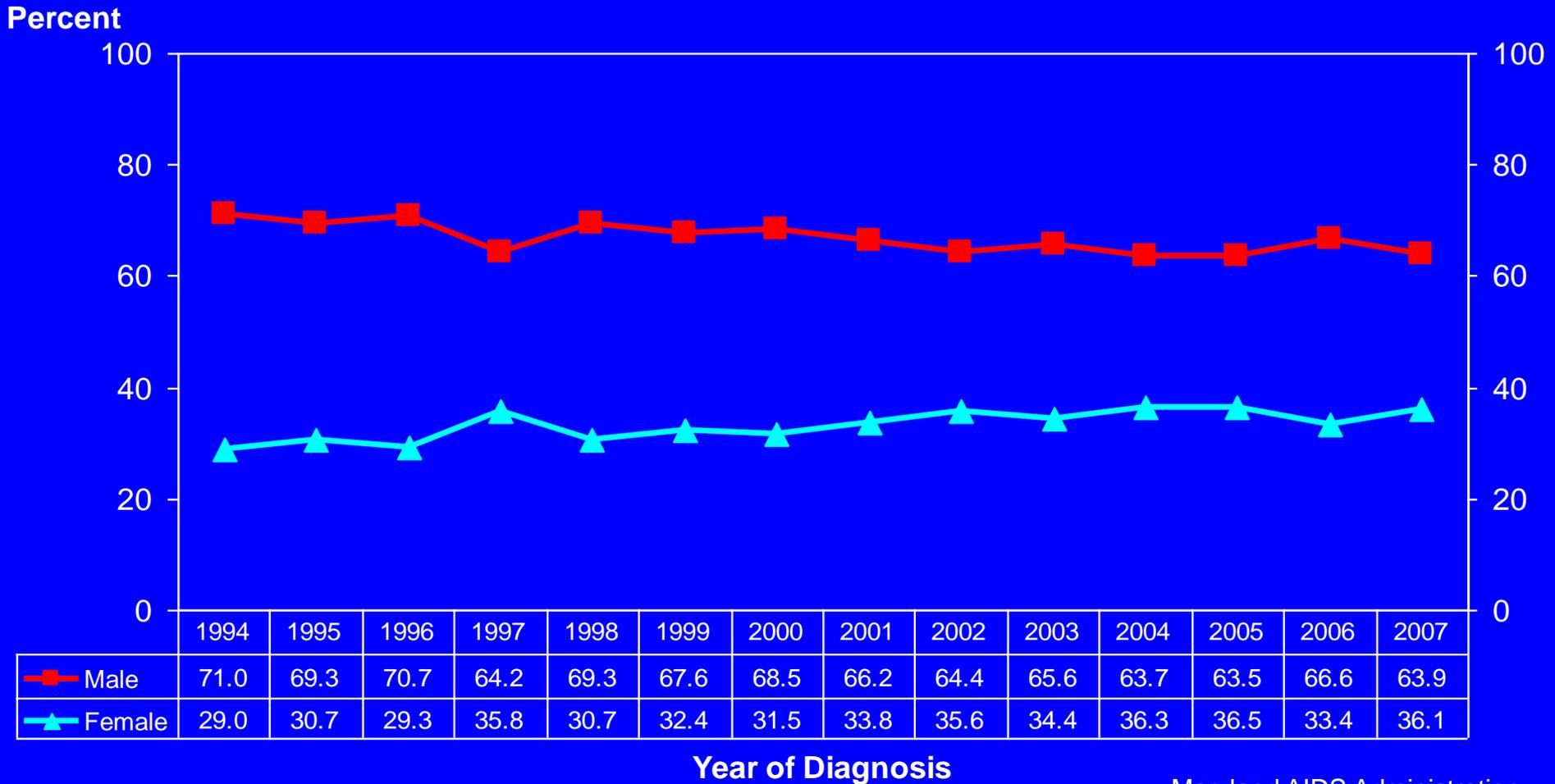


Maryland HIV Incidence

IDU Exposure

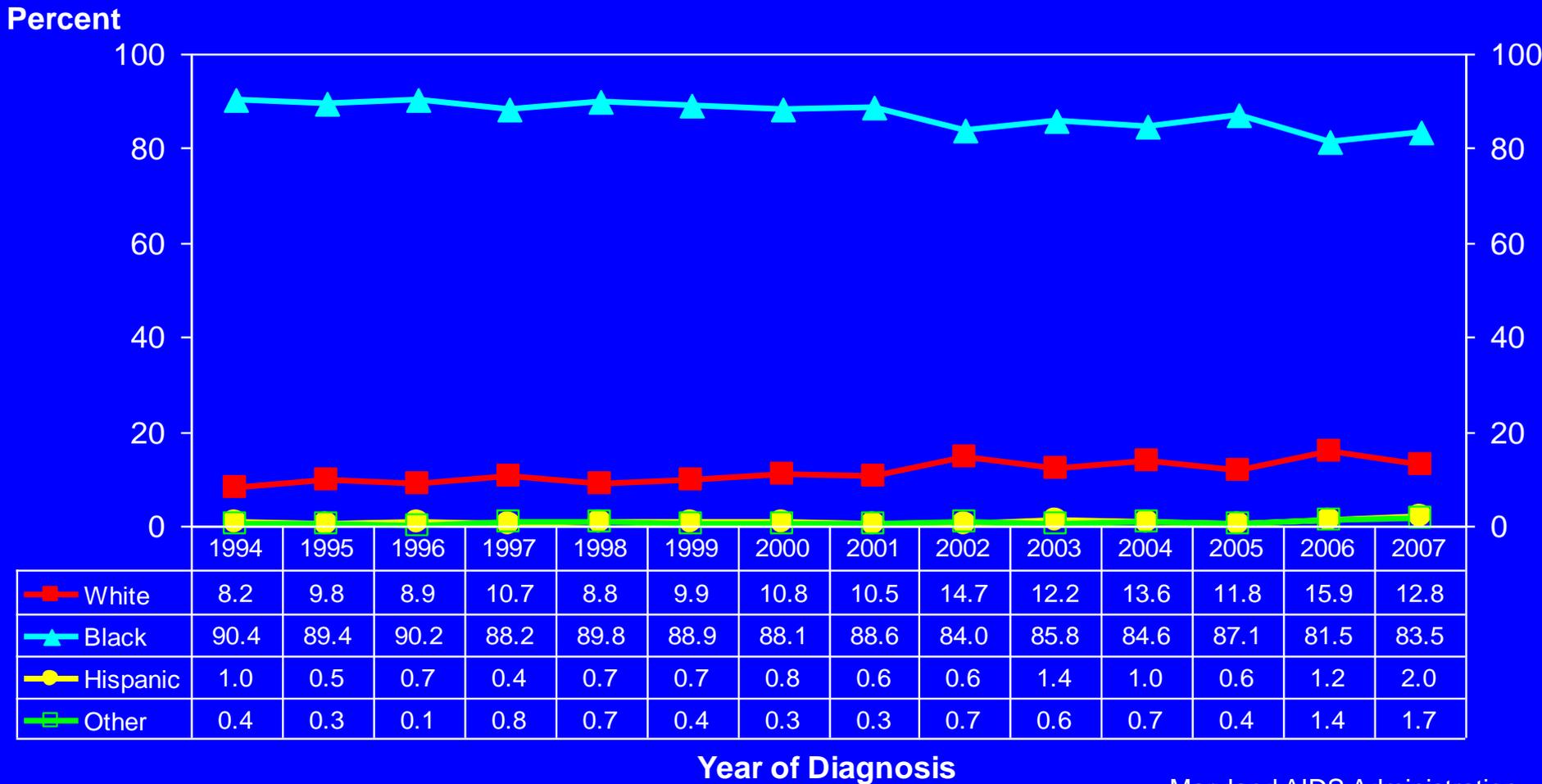
Maryland HIV Incidence Trends

IDU Exposure, Gender



Maryland HIV Incidence Trends

IDU Exposure, Race/Ethnicity



Maryland HIV Incidence Trends

IDU Exposure, Age





Special Populations and Special Requests

Deaf/Hard of Hearing



- Not collected through surveillance data
- Collected through CTR for those tested in publicly funded settings
- Will be reported separately

Transgender

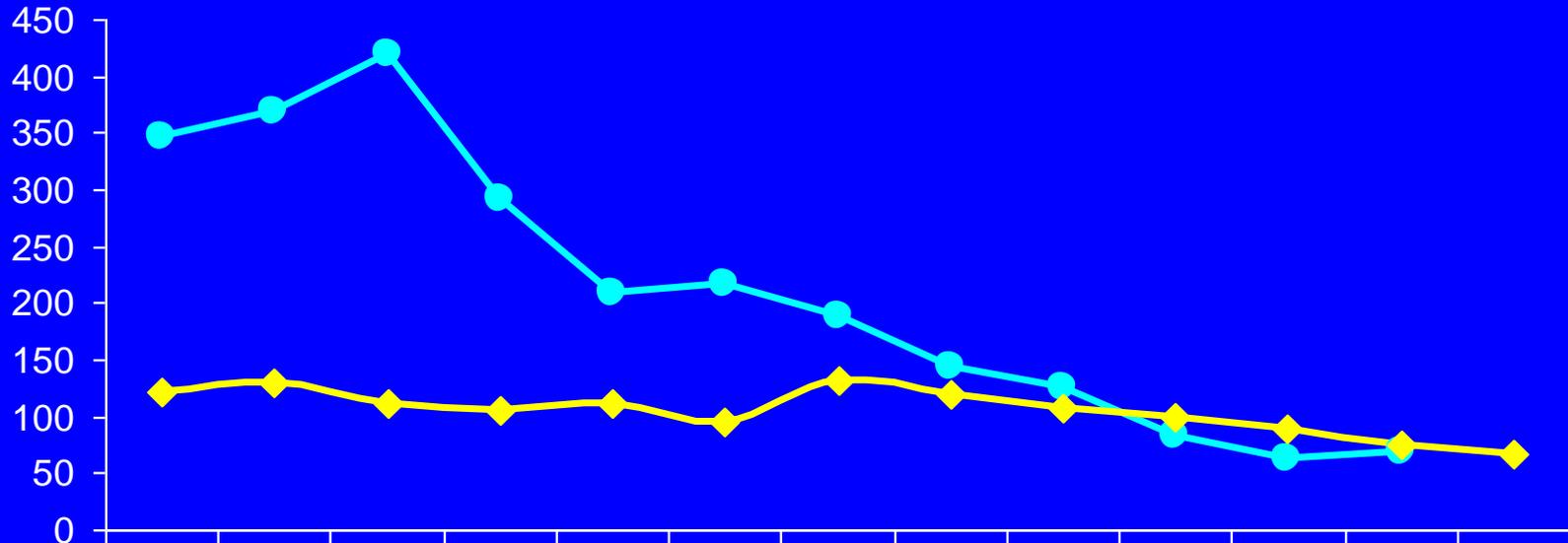


- Change in surveillance reporting form
 - Male
 - Female
 - Male to Female Transgender
 - Female to Male Transgender
- No data available yet

HIV Incidence Trends Corrections, Maryland



Number of Events



Year of Diagnosis

| | | | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| ● Code | 347 | 368 | 419 | 292 | 208 | 216 | 188 | 143 | 125 | 84 | 62 | 68 | |
| ◆ Name | 122 | 129 | 111 | 106 | 111 | 96 | 131 | 120 | 107 | 99 | 90 | 74 | 67 |

Still To Be Addressed



- Country of origin
- Multiple categories for race/ethnicity
- Multiple categories for exposure
- Poverty
- Source of cases
- Lag in reporting
- Delayed diagnosis



Priority Population Recommendations

Maryland HIV Prevention Priorities



1) HIV Positive Persons

Prevalence on 12/31/2007, N=28,270

79% African-American

64% Male

40% are 40-49 years old

X Maryland HIV Prevention Priorities (continued)



2) Heterosexuals

37% of 2007 HIV incidence (N \approx 1,060)

82% African American

40% Male

32% are 40-49 years old

X Maryland HIV Prevention Priorities (continued)



3) Men who have Sex with Men

36% of 2007 HIV incidence (N \approx 1,037)

69% African American

35% are 20-29 years old

X Maryland HIV Prevention Priorities (continued)



4) Injection Drug Users

23% of 2007 HIV incidence (N≈665)

84% African American

64% Male

44% are 40-49 years old

5) Special Populations



Maryland AIDS Administration

www.dhmmh.state.md.us/AIDS/